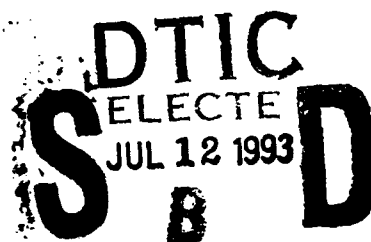


AD-A266 741



2

NAVAL WAR COLLEGE  
Newport, R.I.



OPERATIONAL CONSIDERATIONS IN LITTORAL WARFARE

by

Steven D. Kinney

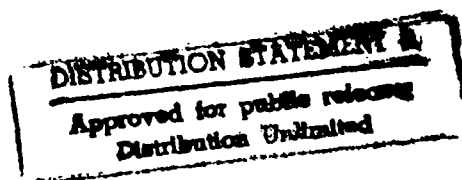
CDR

USN

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

17 May 1993



93-15687



22p

## REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b. RESTRICTIVE MARKINGS	
2a. SECURITY CLASSIFICATION AUTHORITY		3. DISTRIBUTION/AVAILABILITY OF REPORT DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.	
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE		5. MONITORING ORGANIZATION REPORT NUMBER(S)	
4. PERFORMING ORGANIZATION REPORT NUMBER(S)		7a. NAME OF MONITORING ORGANIZATION	
6a. NAME OF PERFORMING ORGANIZATION OPERATIONS DEPARTMENT	6b. OFFICE SYMBOL (if applicable) C	7b. ADDRESS (City, State, and ZIP Code)	
6c. ADDRESS (City, State, and ZIP Code) NAVAL WAR COLLEGE NEWPORT, R.I. 02841		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER	
8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (if applicable)	10. SOURCE OF FUNDING NUMBERS	
8c. ADDRESS (City, State, and ZIP Code)		PROGRAM ELEMENT NO.	PROJECT NO.
		TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) OPERATIONAL CONSIDERATIONS IN LITTORAL WARFARE (UNCLAS)			
12. PERSONAL AUTHOR(S) CDR STEVEN D. KINNEY USN			
13a. TYPE OF REPORT FINAL	13b. TIME COVERED FROM TO	14. DATE OF REPORT (Year, Month, Day) 1993 MAY 17	15. PAGE COUNT 20
16. SUPPLEMENTARY NOTATION A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations. The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.			
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	LITTORAL WARFARE; OPERATIONAL	
19. ABSTRACT (Continue on reverse if necessary and identify by block number)			
THE NATURE OF THE LITTORAL ENVIRONMENT REQUIRES THAT THE OPERATIONAL COMMANDER TAKE ADVANTAGE OF THE INHERENT CAPABILITIES PROVIDED BY NAVAL FORCES. SEA AND AIR MOBILITY, ORGANIC SEA-BASED LOGISTICS AND COMBINED ARMS CAPABILITY MAKE THESE FORCES THE LOGICAL RESPONSE TO MOST REGIONAL CONTINGENCIES. NAVAL FORCES WILL BE REQUIRED TO MAINTAIN CONTROL OF THE SEA AS POWER IS PROJECTED OVER THE SHORE. EFFECTIVE APPLICATION OF THE OPERATIONAL ART AND THE PRINCIPLES OF WAR WILL MAXIMIZE THE EFFECTIVENESS OF FORCES EMPLOYED IN THE LITTORAL ENVIRONMENT.			
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED	
22a. NAME OF RESPONSIBLE INDIVIDUAL CHAIRMAN, OPERATIONS DEPARTMENT		22b. TELEPHONE (Include Area Code) 841-3414	22c. OFFICE SYMBOL C

## Abstract of

### OPERATIONAL CONSIDERATIONS IN LITTORAL WARFARE

The nature of the littoral environment requires that the operational commander take advantage of the inherent capabilities provided by naval forces. Sea and air mobility, organic sea-based logistics and combined arms capability make these forces the logical response to most regional contingencies. Naval forces will be required to maintain control of the sea as power is projected over the shore. Effective application of the Operational Art and the Principles of War will maximize the effectiveness of forces employed in the littoral environment.

ii

DTIC QUALITY INSPECTED 8

Accession For	
NTIS GRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

## TABLE OF CONTENTS

CHAPTER	PAGE
ABSTRACT . . . . .	ii
I INTRODUCTION . . . . .	1
II NAVAL MISSIONS . . . . .	3
III OPERATIONAL ART AND THE PRINCIPLES OF WAR . . . . .	7
IV FORCE PACKAGING AND EMPLOYMENT . . . . .	14
V CONCLUSION . . . . .	15
ENDNOTES . . . . .	16
BIBLIOGRAPHY . . . . .	18

# OPERATIONAL CONSIDERATIONS IN LITTORAL WARFARE

## CHAPTER I

### INTRODUCTION

Amphibious Naval Forces provide the National Command Authority the ideal assets for dealing with the changing strategic environment. Attributes such as sea and air mobility, organic sea-based logistics, and combined arms capability make these forces the logical response to a number of regional contingencies. Amphibious forces can induce enemies to divert forces, fix defensive positions, divert major resources to coastal defense, or disperse forces.<sup>1</sup> These attributes assist the Unified Commanders (CINCS) in applying the Operational Art. Operational Art being defined as the employment of military forces to attain strategic goals.<sup>2</sup>

The change in the international security environment from the monolithic Soviet threat to an uncertain regional threat is reflected in the U.S. Navy's White Paper "...From the Sea." The focus has changed from a global threat to regional challenges and opportunities.<sup>3</sup> A shift has occurred from the Mahanian "Naval Maritime Strategy" that existed under Secretary of the Navy Lehman to the more Corbettian "...From the Sea." No longer are Naval

Forces to be foreseen as engaging the enemy on the high seas. Future naval operations are now foreseen as having a direct link to engaging the enemy in the littoral areas of the world. As stated in the White Paper, "a fundamental shift away from open-ocean warfighting toward joint operations from the sea."<sup>4</sup> The significance of this shift in emphasis necessitates the realistic assumption that the U.S. Navy's preeminence as a global force projection navy will remain unchallenged on the high seas in the post Cold War environment.<sup>5</sup>

The new emphasis on the littoral reflects world geography and demographics. Over two-thirds of the world's population lives within 300Km of the coast.<sup>6</sup> The majority of nation capitals also lie within this band. Only a few land-locked countries are less vulnerable to influence from the littoral area; the most significant being Russia.

## CHAPTER II

### NAVAL MISSIONS

The Navy's two basic warfighting functions remain Sea Control and Power Projection.<sup>7</sup> A third function, Sealift, could be added to reflect the increased dependence of strategic lift with less forward-deployed forces.<sup>8</sup>

Sea Control is defined as the control of designated sea areas and the associated airspace and underwater volume.<sup>9</sup> Sea Control is a prerequisite to allow access of naval expeditionary forces to accomplish the Power Projection mission. It also enables the free use of sea lines of communication to provide sustainment.

The change in emphasis in operating environments from blue to green water makes necessary the assumption that friendly forces' lines of communication will be secure from home bases to the contingency area. In the past, U.S. naval forces have been optimized to operate in the blue water environment when a threat existed to lines of communication. Recall that Anti-Submarine Warfare was the Chief of Naval Operations number one priority only a few years ago. Despite the lessons of the two World Wars, submarines operating in blue water are now considered a less viable threat. The Navy's White Paper states: "With the demise of the Soviet Union, the free nations of the world claim preeminent control of the seas and ensure freedom of commercial maritime passage."<sup>10</sup>

The White Paper reflects the necessity of jointness in the

littoral environment by identifying new key operational capabilities. Among these newly identified capabilities is Battlespace Dominance, in reality, an extension of Sea Control. Again, Battlespace Dominance is a prerequisite for the projection of power ashore. What has changed is the boundaries of the problem. Battlespace Dominance must extend from seaward to landward. The concept of Sea Control remains valid from the open ocean to the shore.

Although the blue water threat has been assumed to be negligible, the compressed green water environment has a higher threat density.

This higher threat density results in less decision time and an increased need for effective Command and Control and real-time Surveillance. This hazardous threat environment increases the demand for high technology and high cost systems. The threat in the littoral region can be characterized by submarines operating in shallow water, land-based air, shore-launched anti-ship cruise missiles and high speed naval craft that may be cruise missile capable.

This high threat environment has increased the requirement on weapons system capability. Paradoxically, the more capable (and more expensive) platforms must be risked closer to the threat in order to effectively achieve Battlespace Dominance. Some new systems have improved standoff ranges. The extended ranges of Landing Craft Air-Cushioned (LCAC) and the tilt-rotor V-22 will allow increased standoff of amphibious ships. However, other naval



platforms will be required to venture closer to the shore in order to extend Battlespace Dominance and Power Projection ranges further inland. Newer naval platforms are being optimized for operating inshore. The AEGIS system's SPY-1 radar gives surface combatants and improved AAW capability for overland targets. Also, the E-2's early warning radar is being improved for detecting targets in ground clutter.

The key to extending Battlespace Dominance over the shore will be a sound joint doctrine and hardware that will provide timely threat detection and a cooperative engagement capability. An example of this would be the detection of an enemy aircraft by an airborne early warning radar and engagement by ship or shore-launched surface to air missiles. As the Global Positioning System realizes its full potential it may be possible to link Patriot and AEGIS missile systems to cooperatively engage air threats in littoral environment. A cooperative engagement capability will decrease the likelihood that any one system will be oversaturated by threats.

Other threats in the littoral require the utilization of joint assets to achieve Battlespace Dominance. For example, surface combatants have a limited capability for countering the high speed surface threat, especially at night. The response to this threat has been to embark Army helicopters which have proven to be highly effective.

As naval forces approach the littoral, the threat increases. This increased risk to high value assets is a major consideration

affecting the ability to project power over the shore. "Power Projection is a means of supporting land or air campaigns utilizing capabilities designed for naval tasks."<sup>11</sup> Power Projection for naval forces can be broken down into two categories: Strike Warfare and Amphibious Warfare. Strike Warfare operations range from the employment of strategic nuclear weapons and sea-launched cruise missiles to naval bombardment and carrier-launched airstrikes. However, the most significant power projection capability of naval forces is the forcible entry of amphibious assault forces.

Although Strike Warfare may be used to influence events on land, only ground forces have the capability to seize and hold territory or force an end to a conflict. Desert Storm provides a good example. Although coalition forces conducted a very effective air campaign, ground forces were required to forcibly remove Iraqi forces occupying Kuwait. Consider that "man lives on the land, not on the sea, and conflict at sea has strategic meaning only with reference to what its outcome enables, or implies, for the course of events on land."<sup>12</sup>

While the future of amphibious warfare may not be in frontal assault, it will remain a necessary capability to project power into the littoral regions of the globe.

## CHAPTER III

### OPERATIONAL ART AND THE PRINCIPLES OF WAR

In applying the operational art, amphibious forces give the operational commander the choice of when and where to engage enemy forces. "Ideally, the operational commander fights only when and where he wants to."<sup>13</sup> Thus, the employment of military force can be selected when it is strategically necessary and there is a good chance of success. Less mobile ground forces may not have this option.

The littoral environment and amphibious forces provide some unique characteristics for the application of the operational art. As mentioned in the introduction, these are mobility, organic logistics and a combined arms capability.

Mobility can be broken down into the various levels of warfare: strategic, operational and tactical. Strategic mobility enables the projection of power to the various theatres. A lack of forward bases limits power projection ability which requires strategic mobility.<sup>14</sup> Desert Shield and Desert Storm highlighted the need for friendly staging areas. However, future contingencies may require the Marine Corps forced-entry capability to acquire a foothold.

The Adaptive Planning process now being utilized by the JCS now requires a high degree of strategic mobility. As assigned forces overseas and total assets are being decreased, the necessity of multiple apportionment of forces to the CINCs has arisen. Of

course, naval forces have routinely been moved from theatre to theatre as the threat has shifted or contingencies have occurred. This type of mobility is now becoming a necessity for all armed forces. Although a lot of troops will be moved to the theatre by air, the vast majority of supplies and heavy equipment will still be transported by sea.

Operational mobility refers to the capability to rapidly move assets within the theatre. For a continental power, this is normally accomplished overland. However, the U.S. will again emphasize the ability to move over the ocean. The operational mobility of amphibious forces provides an unparalleled degree of flexibility for employment by the operational commander. Amphibious forces utilized during Desert Storm had the flexibility to evacuate non-combatants from the horn of Africa and provide humanitarian relief in Bangladesh.

Tactical mobility is the ability to move in combat.<sup>15</sup> Tactical mobility enables the rapid maneuver of assets within the engagement or battle. Tactical mobility supports the principle of maneuver which will be discussed along with the other principles of war.

Amphibious forces' flexibility and mobility enable the operational commander to effectively apply the principles of war. The U.S. Army currently recognizes the following principles of war:<sup>16</sup>

- |                   |                   |
|-------------------|-------------------|
| -Objective        | -Maneuver         |
| -Offensive        | -Unity of Command |
| -Mass             | -Security         |
| -Economy of Force | -Surprise         |
|                   | -Simplicity       |

While there are subtle differences in the Marine Corps' principles of war, this paper will analyze the Army's principles and how they may be applied to the littoral environment.

Briefly, the objective must satisfy a strategic military requirement. As mentioned above, the flexibility of employment of amphibious forces gives the operational commander the opportunity to correctly define the objective.

The principle of the offensive requires that friendly forces seize, retain and exploit the initiative.<sup>17</sup> Amphibious forces are normally going to have the initiative by virtue of their employment. The enemy will be required to react to when and where forces are projected ashore. The main concern for the operational commander should be to maintain the initiative.

Mass is another key to success. Once ashore, forces must maintain sufficient mass to maintain a favorable balance of military power. Decisive military force is a necessity for ensuring success. This is in keeping with the Weinberger Doctrine and the current administration's policies. As a result of Viet Nam, the U.S. will be hesitant to employ less than a decisive force.

Economy of force requires that a minimum of essential combat power be devoted to secondary efforts.<sup>18</sup> As mentioned above, the strategic and operational mobility of amphibious forces enables the operational commander to move forces to where they are needed. A corollary benefit of the flexibility of employment of these forces is that their mere presence in an area may deter several crises

simultaneously. However, once forces are committed to a certain contingency, this flexibility is lost for a period of time. As these forces complete their enabling function, follow-on forces can maintain the effort, freeing the amphibious forces for another contingency.

Surprise is another principle that amphibious forces can apply. While it has been said that the probability of achieving strategic surprise is unlikely due to modern technology, it still may be achieved in certain contingencies.<sup>19</sup> Modern surveillance systems do have the ability to detect naval forces in the open ocean, but this capability is owned by only a few nations. The availability of these assets to the nations likely to be belligerents in a crisis is less than certain. Only the U.S. and the former Soviet Union have the assets to maintain global coverage. While the French SPOT satellite has considerable capabilities, access to its data may be controlled. For example, Iraq was denied access to SPOT data during the Gulf War.

Deception can be considered a subprinciple of surprise. The goal of deception is to get the enemy to do something. The enemy must react to some course of action that he thinks friendly forces will choose. Again, the Gulf War provides a good example of the utility of amphibious forces. The afloat amphibious forces acted as a fixing force. Iraqi forces were postured in anticipation of an amphibious assault that never came. While U.S. leaders may be criticized for violating the principles of economy of force and mass for not bringing these troops ashore, in reality, they tied up

a far greater number of Iraqi forces. "The failure to land U.S. Marines in the Gulf War must not be allowed to obscure the value of the presence of the amphibious forces in bluffing the Iraqi high command."<sup>20</sup>

The essence of the principle of maneuver is to "place the enemy in a position of disadvantage through the flexible application of combat power."<sup>21</sup> Using maneuver warfare, the operational commander may achieve the necessary leverage to affect the enemy's center-of-gravity without direct conflict.

Over-the-horizon assault in amphibious operations may be better termed the maritime component of maneuver warfare.<sup>22</sup> Unlike inland terrain, the ocean is relatively flat. This offers amphibious forces the ability to exploit its advantage of mobility by using multiple landing points and rapidly shifting forces to achieve the advantage.<sup>23</sup> By operating beyond enemy visual and radar range, amphibious forces can employ maneuver warfare concepts such as surprise, speed, flexibility and mobility to achieve a tactical advantage over the enemy.<sup>24</sup>

The relatively featureless terrain of the desert enabled coalition forces to take similar advantage of maneuver in the Gulf War. It may be argued that the majority of coalition forces were optimized for operation on the plains of central Europe and thus could effectively use maneuver warfare in the desert. More rugged terrain may hamper ground forces' ability to apply the principle of maneuver.

Amphibious forces will virtually always have the ability to

apply the principle of maneuver, even against small, well-defended targets. For example, U.S. Marines assaulted Tinian in 1944, with its 9000 defenders, by landing an entire division in one day across two beaches with a total width of only 125 yards. The Marines' losses were minimal and the assault was successful largely because Japanese forces were concentrated on larger beaches on other parts of the island.<sup>25</sup>

Maneuver warfare is linked to the operational art. Forces must be concentrated in the right place at the right time. Concentration, speed and surprise are the keys to success.<sup>26</sup>

Unity of command is a principle of war that has led to much discussion in its application to amphibious warfare. "For every objective, ensure unity of effort under one responsible commander."<sup>27</sup> The Navy and Marine Corps have been criticized for shifting command from the naval commander to the marine commander once forces have been established ashore. The operational commander should strive to maintain these forces under one commander. Joint Pub 3-02 discusses command considerations in depth.<sup>28</sup>

The principle of security requires that friendly forces never permit the enemy to acquire an unexpected advantage.<sup>29</sup> Once power is projected across the shore, the operational commander must ensure that he does not become too fixated on the land campaign. Sea Control must be maintained in order to deny the enemy the capability to attack friendly lines of communication.

Despite the complexity of modern warfare, the operational



commander must not overlook the principle of simplicity. Clear, uncomplicated plans and orders are a requirement for success in the application of the operational art.

## CHAPTER IV

### FORCE PACKAGING AND EMPLOYMENT

The operational commander should foresee what assets will be needed and employ them effectively in the littoral environment. Force packages for conducting operations from the littoral environment require naval forces to secure the route to the beachhead, air power to secure the skies and ground troops to establish a foothold on enemy territory.<sup>30</sup> Traditionally, the Navy-Marine Corps team has been the combined arms organization of choice to fulfill these requirements. However, as forces decrease and commitments are maintained, the other services will be required to provide assets.

As mentioned above, the requirement for armed helicopters may be fulfilled by the Army. These may be employed during the establishment of Sea Control against small, high-speed surface threats. Once this threat has been eliminated, these assets may be utilized ashore in their traditional role of fire support.

Similarly, Marine fixed-wing aviation assets may be brought ashore from the carrier as the conflict requires. If a higher sortie rate and quicker response time can be achieved on land, the operational commander should consider moving air assets ashore.

## CHAPTER V

### CONCLUSION

The downsizing of U.S. military forces and the standdown of overseas bases necessitates the United States maintain its capability for projecting power from the littoral region. While the U.S. will remain the dominant military power for the foreseeable future, assets in theatre will continue to decline. This is especially true now that the threat is less well-defined and U.S. forces are not deployed in response to the Soviet threat.

Criticism of an overreliance on projecting power from the littoral centers around the assertion that some opponents may be less influenced from the sea. For example, the former Soviet Union has a strategic depth of 3300Km.<sup>31</sup> The continued erosion of U.S. naval aviation's ability to conduct the deep strike mission may effect our ability to influence some belligerents from the sea. However, "in modern times, the leading western sea power of the day has won (or at worst drawn) all of its major conflicts with the leading land power."<sup>32</sup>

The U.S. Army and Air Force will still be required to exploit the initial advantage obtained from the sea. The key to the United States future success will be the leverage it possesses through the ability to exploit the global flexibility of sea-based power for agile force projection.<sup>33</sup>

## ENDNOTES

1. U.S. Joint Chiefs of Staff, Joint Doctrine for Amphibious Operations, Joint Pub 3-02 (Washington: 1992), p. I-1.
2. U.S. Army Department, FM 100-5 OPERATIONS, (Washington: 1986), p. 10.
3. U.S. Navy Department, "...From the Sea," (Washington: 1992), p. 1.
4. Ibid., p. 2.
5. Eric Grove, The Future of Sea Power (Annapolis: Naval Institute Press, 1990), p. 237.
6. Ibid., p. 48.
7. U.S. Navy Department, Strategic Concepts of the U.S. Navy, NWP 1 (Rev. A), p. 1-3-1.
8. Colonel Roger M. Jaroch, "Supporting Land Warfare," U.S. Naval Institute Proceedings, November 1988, p. 52.
9. NWP 1 (Rev. A), p. 1-3-1.
10. "...From the Sea," p. 2.
11. NWP 1 (Rev. A), p. 1-3-2.
12. Colin S. Gray and Roger W. Barnett, ed., Seapower and Strategy (Annapolis: Naval Institute Press, 1989), p. 4.
13. U.S. Navy Department, Campaigning, FMFM 1-1, (Washington: 1990), p. 59.
14. LtCol Paul F. Pugh, "Operational Art and Amphibious Warfare," Marine Corps Gazette, July 1991, p. 82.
15. FMFM 1-1, p. 71.
16. FM 100-5, p. 173.
17. Ibid., p. 174.
18. Ibid., p. 174.
19. Anthony Preston, "Amphibious Warfare in the 1990's," Naval Forces, Volume 13 Number 4 , 1992, p. 14.

20. Ibid., p. 18.
21. FM 100-5, p. 175.
22. John J. Kelly, "Amphibious Warfare: A Roundtable Discussion," Marine Corps Gazette, August 1992, p. 38.
23. Grove, p. 51.
24. Joint Pub, 3-02, p. III-12.
25. Maj. Jon T. Hoffman, "The Future of Forcible Entry," Marine Corps Gazette, April 1991, p. 32.
26. Pugh, p. 83.
27. FM 100-5, p. 175.
28. Joint Pub, 3-02, Chapter II.
29. FM 100-5, p. 176.
30. Preston, p. 12.
31. Gray and Barnett, p. 358.
32. Ibid., p. 23.
33. Ibid., p. 377.

## BIBLIOGRAPHY

- Gray Colin S. and Barnett Roger W., ed. Seapower and Strategy. Annapolis: Naval Institute Press, 1989.
- Grove, Eric. The Future of Sea Power. Annapolis: Naval Institute Press, 1990.
- Hoffman, Maj. Jon T. "The Future of Forcible Entry." Marine Corps Gazette, April 1991, pp. 28-32.
- Jaroch, Col. Roger M. "Supporting Land Warfare." U.S. Naval Institute Proceedings, November 1988, pp. 50-55.
- Kelly, John J. "Amphibious Warfare: A Roundtable Discussion." Marine Corps Gazette, August 1992, pp.36-38.
- Preston, Anthony. "Amphibious Warfare in the 1990's." Naval Forces, Voume 13 Number 4, 1992, pp. 12-16.
- Pugh, LtCol. Paul F. "Operational Art and Amphibious Warfare." Marine Corps Gazette, July 1991, pp. 81-85.
- U.S. Army Department. FM 100-5 OPERATIONS. Washington: 1986.
- U.S. Joint Chiefs of Staff. Joint Doctrine for Amphibious Operations, Joint Pub 3-02. Washington: 1992.
- U.S. Navy Department. Campaigning, FMFM 1-1. Washington: 1990.
- U.S. Navy Department. "...From the Sea." Washington: 1992.
- U.S. Navy Department. Stategic Concepts of the U.S. Navy, NWP 1 (Rev. A).